

RUDRAPRASAD CONSULTANTS

Structural Engineers, Architects &
Project Management Consultants



To,

Date: 07-02-2020

ASSISTANT EXECUTIVE ENGINEER
YELAHANKA SATELLITE TOWN SUB DIVISION
BBMP
BANGALORE

Dear Sir,

Sub: M/s. Rudraprasad Consultants Services for the work of **Asphalting to main and cross roads at DeoMarvells layout in ward no-03 Yelahanka Satellite Town sub Division**

Ref: 1. Work Order No: BBMP/EE/YNK.D/W.O/183/2019-20
2. Job code: 003-20-000083

We are here with forwarding to M/s. Technical Manager (West), KRIDL, Bangaluru, 5th Block, 17th Main Shivakumar Swamy Building, Bhashyam Circle Bangalore-560010. First & Final Bill duly verified and certified that the work is satisfactory and for a Gross Value of Rs. 1,95,98,742/- (Rs. One Crore Ninety Five Lakhs Ninety Eight Thousand Seven Hundred Forty Two Only).

Thanking you,

Yours faithfully,

For Rudraprasad Consultants



R. KARTHIK RECHAN B.E, M.S (U.S.A)
PRINCIPAL CONSULTANT
RUDRAPRASAD CONSULTANTS

Attachments PMC Compliance report

45
Assistant Executive Engineer
Yelahanka Satellite Town
Sub-Division
BBMP, Bengaluru-560

AE

7/2/2020

#3, 7th Main Malleswaram, Bangalore – 560003
Telefax: 9180 23444801, Mobile: 91 9972924526
Web: www.arkengineers.com e-mail: rechan6630@yahoo.co.in

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NAME OF WORK:- Asphalting to main and cross roads at DeoMarvells layout in ward no-03 Yelahanka Satellite Town sub Division

Name of Client : Assistant Executive Engineer, Yelahanka Satellite Town Sub Division, BBMP, Bangalore.

Contractor/ Agency: M/s. Technical Manager (West), KRIDL, Bangaluru, 5th Block, 17th Main Shivakumar Swamy Building, Bhashyam Circle Bangalore-560010.

Total Cost RS. 2,00,00,000/-

Date Of Inspection : 07-02-2020

Status Of Bill : First & Final Bill

In the Presence of : a) Assistant Engineer Ward No. 03, BBMP, Bangalore
b) R. Karthik Rechan, Partner, M/S RUDRAPRASAD CONSULTANTS, BANGALORE

PMC COMPLIANCE REPORT

Sl. No.	Description of work	Comments/Observations
1	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specifications(P.No-143 & 136 ,I No-19.1&17.4& 17.1) 5km lead= $57+2.0 \times 1.28 \times 5 = 69.80$ complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
2	Providing and laying in position plain cement concrete of Mix 1:2:4 with OPC @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.878 cum and fine aggregates @ 0.53cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, plinth and cills, including cost of all materials, labour, HOM curing complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
3	Providing and fixing pre cast solid cement concrete kerb stones made out of CC 1:2:4 with top and bottom width 114 and 165 mm respectively, 400mm high and 450mm in length finished with CM 1:3 plastering and finishing cutting including formwork, curing, including cost of materials, labour charges of machinery, loading and unloading, lead and lift, transportation etc.,complete. As per the direction of Engineer incharge.	Work done upto the Billed Quantity and the Quality is satisfactory

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4	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications.	Work done upto the Billed Quantity and the Quality is satisfactory
5	Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by road roller attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM of machineries complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
6	Compaction of original ground by mechanical means including filling in depression occurring during rolling including cost of all labour, HOM complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
7	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregates of granite/ trap/basalt material, mixing in a mechanical mix plant at OMC, Carriage of mixed material to work site, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
8	Providing, laying, spreading and compacting crushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
9	Cleaning the existing WBM Road surface including removing of binding materials and other foreign matter with wire brushes and small picks sweeping with brooms or soft brushes and finally dusting with old gunny bags and bar or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
10	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory

Assistant Executive Engineer
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11	Providing and laying dense graded bituminous macadam using crushed aggregates of specified grading, premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications Clause 505 of MORTH V revision using 40/60 TPH capacity H.M.P. with Mechanical paver Gr-II (50 mm to 75 mm) with 4.5 % VG-30 Bitumen complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
12	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and/or compressed air to receive bituminous treatment including cost of all materials, labour, HOM of machineries complete as per specifications. and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
13	Providing and applying tack coat using 80/100 grade bitumen (VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
14	Providing and laying Bituminous Concrete 40 mm thick with hot mix plant, using crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015 - using 40-60 TPH capacity HMP with mechanical Paver, Gr-II (30-45mm) with 5.4 % of modified bitumen binder consisting of 4.97% VG-30 bitumen (60/70 grade) 0.43% Plastomeric Thermoplastics (Waste plastic Additive). complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory



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15	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
16	Road markers/ Road stud , KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS (Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering thje lens face and shall support a load of 16000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/NH/33023/10-97-DO III Dt 11.06.1997.The height, width and length shall not exceed 50mm, 100mm and 102 mm and with minimum reflective area of 13 Sqcm on each side and the slope to the base shall be 35 degree.The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19mm and height not less than 30mm)from the body is to be a minimum value of 500kg. Fixing will be by drilling holes on the road for the shanks to go inside, without ails and using epoxy resin based adhesive as per manufacture's recommendation and complete as per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
17	Filling in foundation with granite/trap broken metal 100mm and down size ,with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications per specifications and directions of the Engineer in charge. 40mm Jelly	Work done upto the Billed Quantity and the Quality is satisfactory
18	Filling in foundation with granite/trap broken metal 100mm and down size ,with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications per specifications and directions of the Engineer in charge. 20mm Jelly	Work done upto the Billed Quantity and the Quality is satisfactory



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19	Filling in foundation with granite/trap broken metal 100mm and down size ,with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications per specifications and directions of the Engineer in charge. Coarse sand	Work done upto the Billed Quantity and the Quality is satisfactory
20	Filling in foundation with granite/trap broken metal 100mm and down size ,with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications per specifications and directions of the Engineer in charge Fine sand	Work done upto the Billed Quantity and the Quality is satisfactory
21	Filling in foundation with granite/trap broken metal 100mm and down size ,with approved sand including hand packing, ramming, watering, including cost of all materials and labour with lead up to 50m and lift 1.5m complete as per specifications per specifications and directions of the Engineer in charge. 12.5mm chips	Work done upto the Billed Quantity and the Quality is satisfactory
22	Supplying, laying and jointing HDPE pipes of specified grade and conforming to IS 4984-995 with latest amendments and conveying to work site including loading at both destinations and rolling and lowering into trenches, laying true to line and jointing of pipes and specials, giving hydraulic test as per relevant ISS with all lead and lifts including encasing the pipe around to a depth of not less than 15 cms. with soft gravel or selected earth available from the excavation, testing and commissioning. The rate is exclusive of required specials and fittings wherever necessary like saddle tee, stud ends, flanged sets, bends, reducers etc. complete (Contractor will make his own arrangements for procuring water for testing) etc. for: HDPE Grade PE80-PN6.0, 630mm dia .(Perforated Pipe for Rain Water Harvesting Pit) (BWSSB SR as per specifications per specifications and directions of the Engineer in charge	Work done upto the Billed Quantity and the Quality is satisfactory
23	Providing of Geonets for Rain Water Harvesting pit on the filter media as specified in drawings or as approved by Engineer Incharge	Work done upto the Billed Quantity and the Quality is satisfactory

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